

## General

## Guideline Title

British Association of Dermatologists' guidelines for the management of contact dermatitis 2017.

## Bibliographic Source(s)

Johnston GA, Exton LS, Mohd Mustapa MF, Slack JA, Coulson IH, English JS, Bourke JF. British Association of Dermatologists' guidelines for the management of contact dermatitis 2017. Br J Dermatol. 2017 Feb;176(2):317-29. [121 references] PubMed

#### **Guideline Status**

This is the current release of the guideline.

This guideline updates a previous version: Bourke J, Coulson I, English J, British Association of Dermatologists Therapy Guidelines and Audit Subcommittee. Guidelines for the management of contact dermatitis: an update. Br J Dermatol. 2009 May;160(5):946-54. [64 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

# Recommendations

## Major Recommendations

Definitions for the levels of evidence (High, Moderate, Low, Very low) and strength of recommendations (Strong for, Weak for, No recommendation, Strong against) are provided at the end of the "Major Recommendations" field.

#### Summary of Recommendations

Diagnosis

Offer patients with suspected contact dermatitis a patch test with a baseline series of allergens. (Strong recommendation for the use of an intervention)

In identifying allergens in patients with contact dermatitis, *consider* testing for additional series dependent on allergen exposure. (Weak recommendation *for* the use of the intervention)

Consider additional readings at day 6 or 7 if the results are unexpectedly negative at day 4. (Weak recommendation for the use of the intervention)

Prevention

Consider skin care and skin protection creams in preventing occupational dermatitis. (Weak recommendation for the use of the intervention)

#### Treatment

Offer alitretinoin to patients with severe chronic hand eczema.\* (Strong recommendation for the use of the intervention)

Consider topical tacrolimus to patients with contact dermatitis where topical steroids are unsuitable or ineffective. (Weak recommendation for the use of the intervention)

Consider psoralen plus ultraviolet A (PUVA) therapy for treating patients with chronic hand eczema. (Weak recommendation for the use of the intervention)

Consider patient education in occupational contact dermatitis. (Weak recommendation for the use of the intervention)

\*Note: See National Institute for Health and Care Excellence. Alitretinoin for the treatment of severe chronic hand eczema. Available at: https://www.nice.org.uk/guidance/ta177

#### Summary of Good-Practice Recommendations (Informal Consensus)

*Use* clinical assessment tools such as the Dermatology Life Quality Index and the Hand Eczema Severity Index for both the initial assessment and the response to treatment of patients with contact dermatitis.

Take a detailed history, including symptoms and if they were related to application or use of any particular product, a specific activity or occupation.

If related to the workplace *investigate* the work practice and products handled at work, supplemented by examination of health and safety data sheets.

*Provide* a patient information leaflet on patch testing as part of the counselling process, which includes information on potential side-effects. Informed patient consent should be obtained.

Offer patch testing for patients with chronic or persistent dermatitis as clinical features alone are unreliable in distinguishing allergic contact from irritant and endogenous dermatitis, particularly with hand and facial dermatitis.

Consider deferring patch testing for 3 months after finishing systemic agents and 6 months after finishing biological agents to minimize the chance of false-negative reactions, if possible.

#### **Definitions**

#### Quality of Evidence Defined

Quality	Definition
High	Further research is very unlikely to change the confidence in the estimate of effect.
Moderate	Further research is likely to have an impact on confidence in the estimate of effect and may change the estimate.
Low	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very low	Any estimate of the effect is very uncertain.

#### Strength of Recommendation Ratings

Strength	Wording	Definition
Strong recommendation <i>for</i> the use of an intervention	'Offer' (or similar, e.g., 'use', 'provide', 'take', 'investigate', etc.)	Benefits of the intervention outweigh the risks; most patients would choose the intervention, while only a small proportion would not; for clinicians, most of their patients would receive the intervention; for policymakers, it would be a useful performance indicator
Weak recommendation <i>for</i> the use of an intervention	'Consider'	Risks and benefits of the intervention are finely balanced; most patients would choose the intervention, but many would not; clinicians would need to consider the pros and cons for the patient in the context of the evidence; for policy-makers it would be a poor performance indicator where variability in practice is expected
No		Insufficient evidence to support any recommendation

Strong recommendation against the use of an intervention	Wording 'Do not offer'	<b>Definition</b> Risks of the intervention outweigh the benefits; most patients would <i>not</i> choose the intervention, while only a small proportion would; for clinicians, most of their patients would <i>not</i> receive the intervention
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## Clinical Algorithm(s)

None provided

# Scope

## Disease/Condition(s)

Contact dermatitis

Note: The guideline does not cover contact urticaria.

# Guideline Category

Counseling

Diagnosis

Evaluation

Management

Prevention

Treatment

# Clinical Specialty

Allergy and Immunology

Dermatology

### **Intended Users**

Advanced Practice Nurses

Physician Assistants

Physicians

# Guideline Objective(s)

- To provide up-to-date, evidence-based recommendations for the management of contact dermatitis
- To offer an appraisal of all relevant literature up to February 2016, focusing on any key developments
- To address important, practical clinical questions relating to the primary guideline objective
- To provide guideline recommendations and, if appropriate, research recommendations

## **Target Population**

All patients with contact dermatitis

#### **Interventions and Practices Considered**

#### Diagnosis/Evaluation

- 1. Patch testing with baseline series of allergens
- 2. Testing for additional series dependent on allergen exposure
- 3. Timing of patch test readings and patch test testing
- 4. Clinical assessment tools such as the Dermatology Life Quality Index and the Hand Eczema Severity Index
- 5. Detailed patient history
- 6. Investigation of the work practice and products handled at work, supplemented by examination of health and safety data sheets
- 7. Providing a patient information leaflet on patch testing, including information on adverse effects of testing
- 8. Obtaining informed patient consent

#### Prevention/Treatment/Management

- 1. Skin care and skin protection creams
- 2. Alitretinoin
- 3. Topical tacrolimus
- 4. Psoralen plus ultraviolet A (PUVA) therapy
- 5. Patient education on occupational contact dermatitis

## Major Outcomes Considered

- Return to/remain in work
- Improvement in quality of life
- Improved or clearance of dermatitis
- Treatment tolerability
- Prevention of dermatitis
- Side-effects of interventions
- Confirmation of a diagnosis of contact dermatitis

# Methodology

#### Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

# Description of Methods Used to Collect/Select the Evidence

The Guideline Development Group (GDG) established several clinical questions pertinent to the scope of the guideline and a set of outcome measures of importance to patients, ranked according to the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology.

A systematic literature search of the PubMed, MEDLINE, EMBASE, Cochrane and LILACS databases was conducted to identify key articles for contact dermatitis up to February 2016; search terms and strategies, as well as reasons for study exclusion, are detailed in the Supplementary

Information in the web appendix (see the "Availability of Companion Documents" field). Additional references relevant to the topic were also isolated from citations in reviewed literature.

#### Number of Source Documents

- 84 papers were included in the qualitative review.
- 35 papers were included in the quantitative review.

Refer to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) diagram in Web Appendix A for details on the study selection process. A list of excluded studies is detailed in Web Appendix F (see the "Availability of Companion Documents" field).

## Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

## Rating Scheme for the Strength of the Evidence

Quality of Evidence Defined

Quality	Definition
High	Further research is very unlikely to change the confidence in the estimate of effect.
Moderate	Further research is likely to have an impact on confidence in the estimate of effect and may change the estimate.
Low	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very low	Any estimate of the effect is very uncertain.

# Methods Used to Analyze the Evidence

Systematic Review with Evidence Tables

# Description of the Methods Used to Analyze the Evidence

This set of guidelines has been developed using the British Association of Dermatologists' (BAD's) recommended methodology with reference to the Appraisal of Guidelines Research and Evaluation (AGREE II) instrument (www.agreetrust.org \_\_\_\_\_\_), and the Grading of Recommendations Assessment, Development and Evaluation (GRADE).

Evidence from included studies was graded according to the GRADE system (high, moderate, low or very-low quality). Recommendations are based on evidence drawn from systematic reviews of the literature pertaining to the clinical questions identified, the summary of  $\ddot{r}$ -ndings with forest plots, GRADE evidence pro $\ddot{r}$ -les indicating the quality of evidence, and tables linking the evidence to the recommendations (see the guideline's Web Appendices for details [see the "Availability of Companion Documents" field]).

#### Methods Used to Formulate the Recommendations

Expert Consensus

Informal Consensus

# Description of Methods Used to Formulate the Recommendations

This set of guidelines has been developed using the British Association of Dermatologists' (BAD's) recommended methodology with reference to

the Appraisal of Guidelines Research and Evaluation (AGREE II) instrument (www.agreetrust.org ), and the Grading of Recommendations Assessment, Development and Evaluation (GRADE). Recommendations were developed for implementation in the U.K.'s National Health Service.

The Guideline Development Group (GDG) consisted of consultant dermatologists, a nurse specialist and patient representatives.

The GDG established several clinical questions pertinent to the scope of the guideline and a set of outcome measures of importance to patients, ranked according to the GRADE methodology. The clinical questions in patients with contact dermatitis pertinent to the scope of the guidelines included the following:

- Diagnosis
  - Which and how many allergens should be used in tests?
  - When should tests be carried out?
  - Does increasing the number of allergens tested improve diagnosis?
- Prevention
  - Does education improve or prevent hand dermatitis? Do barrier creams improve hand dermatitis?
- Treatment
  - Does topical treatment work?
  - Does systemic treatment work?
  - Do soap substitutes improve contact dermatitis?
  - Does education as a treatment work?
  - Does phototherapy work?

The recommendations were agreed upon unanimously by the core members of the GDG and patient representatives. For further information on the wording used for recommendations and strength of recommendations ratings, see the "Rating Scheme for the Strength of the Recommendations" field.

## Rating Scheme for the Strength of the Recommendations

#### Strength of Recommendation

Strength	Wording	Definition
Strong recommendation for the use of an intervention	'Offer' (or similar, e.g., 'use', 'provide', 'take', 'investigate', etc.)	Benefits of the intervention outweigh the risks; most patients would choose the intervention, while only a small proportion would not; for clinicians, most of their patients would receive the intervention; for policymakers, it would be a useful performance indicator
Weak recommendation for the use of an intervention	'Consider'	Risks and benefits of the intervention are finely balanced; most patients would choose the intervention, but many would not; clinicians would need to consider the pros and cons for the patient in the context of the evidence; for policy-makers it would be a poor performance indicator where variability in practice is expected
No recommendation		Insufficient evidence to support any recommendation
Strong recommendation against the use of an intervention	'Do not offer'	Risks of the intervention outweigh the benefits; most patients would <i>not</i> choose the intervention, while only a small proportion would; for clinicians, most of their patients would <i>not</i> receive the intervention

# Cost Analysis

#### Practical and Economic Considerations

The management of contact dermatitis includes diagnosis, treatment and prevention. There are few studies that look at economic considerations.

What Is the Economic Burden of Suffering from Contact Dermatitis?

The annual societal cost of patients suffering from occupational contact dermatitis is high and comparable with patients with severe atopic/endogenous dermatitis or psoriasis. The costs of suffering from contact dermatitis have been reported as amounting to approximately €2300 for occupational contact dermatitis and €1000 for non-occupational contact dermatitis per patient per annum. As contact dermatitis is so common, this represents a substantial economic burden.

Is It Worthwhile Managing Patients with Contact Dermatitis in a Multidisciplinary Clinic?

Integrated care programmes with a multidisciplinary team, including a dermatologist specializing in patch testing, a specialized nurse and an occupational physician, have been proposed for patients with moderate-to-severe hand dermatitis felt to be work related, and the majority of whom would have at least an element of contact dermatitis. These have been found to be effective in improving outcomes in the short term compared with standard care (patch testing and management by a dermatologist). However, this difference disappears after 12 months. Integrated care programmes cost substantially more than standard care (€3613 vs. €1576 per patient).

## Method of Guideline Validation

External Peer Review

Internal Peer Review

## Description of Method of Guideline Validation

The Guideline Development Group (GDG) consisted of consultant dermatologists, a nurse specialist and patient representatives. The draft document and supporting information was made available to the British Association of Dermatologists (BAD) membership, British Dermatological Nursing Group, Primary Care Dermatological Society, British Society for Cutaneous Allergy, British Society for Skin Care in Immunocompromised Individuals, Society for Occupational Medicine and several authorities in occupational health, which were actively considered by the GDG. Following further review, the finalized version was sent for peer review by the Clinical Standards Unit of the BAD, made up of the Therapy & Guidelines Subcommittee, prior to submission for publication.

# Evidence Supporting the Recommendations

# Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for selected recommendations (see the "Major Recommendations" field).

# Benefits/Harms of Implementing the Guideline Recommendations

#### Potential Benefits

- Studies in occupational settings have demonstrated improvements in established hand dermatitis after comprehensive intervention education programmes. The prevention of hand dermatitis with similar programmes has also been reported.
- Because some allergens often do not yield positive reactions until after day 4, a third reading at day 7 will pick up approximately 10% more positive reactions that were negative on days 2 and 4.

## Potential Harms

- There is some evidence that prolonged glove use impairs stratum corneum barrier function.
- Some allergens are more likely to cause irritant reactions than others. These reactions may be difficult to interpret and are misclassified easily
  as positive reactions.
- Adverse events associated with patch testing are rare. Patients should be counselled that a positive result will produce skin reddening,
  itching and occasionally blistering at the application site, but that this usually disappears after a few days. Patients should be warned that

some positive test reactions, for example to gold, may persist for up to 1 month; that a positive patch test may be accompanied by a  $\lnot$ -, are of existing or previous eczema at distant sites; that an increase or decrease in pigment may be seen at the site of patch tests; and of the small possibility of infection or scarring at the treatment site. Active sensitization is also rare.

- The skin to be tested should be free from dermatitis, and skin disease elsewhere, as well controlled as possible. This will help avoid the 'angry back syndrome' with numerous false-positive results.
- False-positive and false-negative results often occur when patch testing to products brought by the patient and should be interpreted with care.
- If a patient applies potent topical steroids to the back up to 2 days prior to the test being applied, or is taking oral corticosteroids, there is a significant risk of false-negative results and decreased reactivity.
- Patch testing should be deferred for 6 weeks after natural and artificial ultraviolet (UV) exposure, 3 months after itmishing systemic agents and 6 months after itmishing biological agents, to minimize the chance of false-negative reactions.
- While there is no evidence that patch testing in pregnancy is harmful, no safety data are available. Therefore, patch testing should be undertaken only when required and after informed consent is obtained.

# **Qualifying Statements**

## **Qualifying Statements**

This document has been prepared on behalf of the British Association of Dermatologists (BAD) and is based on the best data available when the document was prepared. It is recognized that under certain conditions it may be necessary to deviate from the guidelines and that the results of future studies may require some of the recommendations herein to be changed. Failure to adhere to these guidelines should not necessarily be considered negligent, nor should adherence to these recommendations constitute a defense against a claim of negligence. Limiting the review to English language references was a pragmatic decision, but the authors recognize this may exclude some important information published in other languages.

# Implementation of the Guideline

# Description of Implementation Strategy

An implementation strategy was not provided.

# Implementation Tools

Audit Criteria/Indicators

Patient Resources

For information about availability, see the Availability of Companion Documents and Patient Resources fields below.

# Institute of Medicine (IOM) National Healthcare Quality Report Categories

### IOM Care Need

Getting Better

Living with Illness

Staying Healthy

## **IOM Domain**

Effectiveness

Patient-centeredness

# Identifying Information and Availability

## Bibliographic Source(s)

Johnston GA, Exton LS, Mohd Mustapa MF, Slack JA, Coulson IH, English JS, Bourke JF. British Association of Dermatologists' guidelines for the management of contact dermatitis 2017. Br J Dermatol. 2017 Feb;176(2):317-29. [121 references] PubMed

# Adaptation

Not applicable: The guideline was not adapted from another source.

#### Date Released

2017 Feb

## Guideline Developer(s)

British Association of Dermatologists - Medical Specialty Society

## Source(s) of Funding

British Association of Dermatologists

### Guideline Committee

Guideline Development Group

# Composition of Group That Authored the Guideline

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### Financial Disclosures/Conflicts of Interest

#### Conflicts of Interest

G.A.J. has acted as an invited speaker for Crawford Healthcare Ltd (nonspecific) and as a co-author of British Occupational Health Research Foundation guidelines on occupational dermatitis (specific). I.H.C. has acted as an invited speaker for Stiefel (specific). J.S.C.E. has acted as an invited speaker for Stiefel (specific).

#### **Guideline Status**

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This guideline updates a previous version: Bourke J, Coulson I, English J, British Association of Dermatologists Therapy Guidelines and Audit Subcommittee. Guidelines for the management of contact dermatitis: an update. Br J Dermatol. 2009 May;160(5):946-54. [64 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

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Available from the British Journal of Dermatology Web site

## Availability of Companion Documents

The following is available:

• Mohd Mustapa MF, Exton LS, Bell HK, Ormerod AE, Hughes JR, Levell NJ, Smith CH, McHenry PM. Updated guidance for writing a			
British Association of Dermatologists clinical guideline: the adoption of the GRADE methodology 2016. Br J Dermatol. 2017 Jan.			
176(1):44-51. Available from the British Journal of Dermatology Web site			
Recommended audit points can be found in the original guideline document.			
Additional supporting information (Web Appendices A-G) may be found in the online version of this article at the British Journal of Dermatology			

#### Patient Resources

Web site

The following are available:

Hand dermatitis/hand eczema. Patient leaflet. London (UK): British Association of Dermatologists; 2016 Jan. 5 p. Available from the British
Association of Dermatologists (BAD) Web site
Hand dermatitis. How to care for your hands. Patient leaflet. London (UK): British Association of Dermatologists; 2015 Sep. 5 p. Available
From the DAD Wale site

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

### **NGC Status**

This NGC summary was completed by ECRI on April 25, 2005. The information was verified by the guideline developer on June 27, 2005. This summary was updated by ECRI Institute on August 19, 2010. The updated information was verified by the guideline developer on November 8, 2010. This summary was updated by ECRI Institute on May 1, 2017. The updated information was verified by the guideline developer on May 16, 2017.

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